

34. (Twice Amended) A method of making a microlithography system that forms an image onto an object, comprising the steps of:

providing an irradiation apparatus that irradiates the object with radiation to form the image on the object;

providing a movable stage associated with the irradiation apparatus, the movable stage having a first mirror;

providing a first support structure;

D' providing a second support structure dynamically isolated from the first support structure, the second support structure including a base member that supports the movable stage;

providing a drive having a first portion connected to the movable stage and a second portion connected to the first support structure to move the movable stage in a two-dimensional plane such that a reaction force exerted by the movement of the movable stage is transferred to the first support structure, the second portion of the drive not contacting the movable stage; and

providing a position detector that cooperates with the first mirror to detect a position of the movable stage in the two-dimensional plane, the position detector being supported by the second support structure.

D² 42. (Amended) A method according to claim 36, wherein the position detector projects a light beam to the first mirror fixed to the movable stage and to a second mirror fixed to the projection system.

N³ 47. (Amended) A method according to claim 43, wherein the guideless stage is movable over a surface of the base member on a bearing.

N⁴ 52. (Amended) A method according to claim 34, wherein a substrate stage is movable over a surface of the base member on a bearing.

72. (Twice Amended) An image forming method that forms an image onto an object, comprising the steps of:

moving a stage in a two-dimensional plane of a base member by a driver, the driver having a first portion connected to the stage and a second portion not connected to the stage;

transferring a reaction force caused by the movement of the stage to a first support structure, the first support structure connected to the second portion of the driver;

detecting a position of the stage in the two-dimensional plane by a position detector that is supported by a second support structure dynamically isolated from the first support structure, the second support structure supports the stage and the base member; and

forming the image onto the object by movement of the stage.

80. (Amended) A method according to claim 77, wherein the second support structure has a first portion that supports the stage, and a second portion that supports the projection system.

87. (Amended) A method according to claim 83, wherein the guideless stage is movable over a surface of the base member on a bearing.

91. (Amended) A method according to claim 72, wherein the stage is a substrate stage on which the object is supported.

92. (Amended) A method according to claim 91, wherein the substrate stage is movable over a surface of the base member on a bearing.

104. (Twice Amended) A method of making a positioning apparatus that positions an object, comprising the steps of:

providing a movable stage that holds the object, the movable stage having a first mirror;

providing a first support structure;

providing a second support structure dynamically isolated from the first support structure, the second support structure including a base member that supports the movable stage;

providing a drive having a first portion connected to the movable stage and a second portion connected to the first support structure to move the movable stage in a two-dimensional plane such that a reaction force exerted by the movement of the movable stage is transferred to the first support structure, the second portion of the drive not in contact with the movable stage; and

providing a position detector that cooperates with the first mirror to detect a positional information of the object in the two-dimensional plane, the position detector being supported by the second support structure.

116. (Amended) A method according to claim 104, wherein the position detector projects a light beam to the first mirror fixed to the movable stage.

117. (Amended) A method according to claim 104, wherein the movable stage is a guideless stage having no associated guide member to guide its movement.

120. (Amended) A method according to claim 117, wherein the guideless stage is movable over a surface of the base member on a bearing.

133. (Twice Amended) A positioning method that positions an object, comprising the steps of:

moving a stage that holds the object in a two-dimensional plane of a base member by a driver, the driver having a first portion connected to the stage and a second portion not connected to the stage;

transferring a reaction force caused by movement of the object to a first support structure, the first support structure connected with the second portion of the driver;

P12 detecting a position information of the object in the two-dimensional plane by a position detector supported by a second support structure dynamically isolated from the first support structure, the second support structure supports the stage and the base member; and

positioning the object based on a detection result by the position detector.

P13 140. (Amended) A method according to claim 133, wherein the step of moving the stage includes rotating the stage on an axis of the stage.

P14 142. (Twice Amended) A method according to claim 133, wherein the step of moving the stage includes moving the object in first and second linear directions and rotating the object on an axis of the object.

P15 146. (Amended) A method according to claim 133, wherein the step of detecting a position comprises projecting a light beam to a first mirror fixed to the stage.

147. (Amended) A method according to claim 133, wherein the stage is a guideless stage having no associated guide member to guide its movement.

P16 150. (Amended) A method according to claim 147, wherein the guideless stage is movable over a surface of the base member on a bearing.

D17 154. (Amended) A method according to claim 133, wherein the step of positioning the object comprises moving the stage based on a detection result by the position detector.

D18 157. (Amended) A method according to claim 133, wherein the first portion is one of a magnet and a coil.

✓ Please add new claims 158-171 as follows:

D19 --158. (New) A method of making a microlithography system that exposes a pattern of a mask onto an object by a projection system, comprising the steps of:

providing an object stage that holds the object in association with the projection system, the object stage having a mirror;

providing a support structure that supports the projection system and the object stage, the support structure having a base member disposed below the projection system to support the object stage;

providing a vibration absorbing assembling that holds the support structure to prevent transmission of vibration from a foundation to the support structure, a holding surface of the vibration absorbing assembling being higher than a surface of the base member and lower than a holding surface of the mask;

providing a drive having a first portion connected to the object stage and a second portion not connected to the object stage to move the object stage;

219 providing a reaction frame dynamically isolated from the support structure, the reaction frame connected to the second portion of the drive;

providing a position detector that cooperates with the mirror to detect a position of the object stage, the position detector being supported by the support structure.--

--159. (New) A method according to claim 158, wherein the reaction frame is supported on the foundation.--

--160. (New) A method according to claim 158, wherein the foundation is one of a floor and a base structure.--

--161. (New) A method according to claim 158, wherein the holding surface of the vibration absorbing assembly is higher than a holding surface of the object.--

--162. (New) A method according to claim 158, wherein the second portion of the drive is movable on the reaction frame.--

--163. (New) A method according to claim 162, wherein the second portion of the drive is one of a coil member and a magnet member.--

--164. (New) A method according to claim 158, wherein the base member comprises a horizontal planar surface and the drive moves the object stage in a horizontal plane.--

--165. (New) A method according to claim 163, wherein the base member comprises a horizontal planar surface and the drive moves the object stage in a horizontal plane.--

--166. (New) A method according to claim 158, wherein the support structure supports the mask.--

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--167. (New) A method according to claim 165, wherein the support structure supports the mask.--

--168. (New) A method according to claim 158, wherein the support structure supports a condenser lens located above the mask.--

--169. (New) A method according to claim 167, wherein the support structure supports a condenser lens located above the mask.--

--170. (New) A method according to claim 158, wherein the reaction frame does not receive the weight of the base member.--

--171. (New) A method according to claim 169, wherein the reaction frame does not receive the weight of the base member.--

REMARKS

Claims 34-44, 47-50, 52-78, 80-83, 87-104, 106-113, 116, 117, 120-123, 130-133, 135-138, 140-143, 146, 147, 150-154 and 157-171 are pending. By this Amendment, claims 158-171 are added, claims 34, 42, 47, 52, 72, 80, 87, 91, 92, 104, 116, 117, 120, 133, 140, 142, 146, 147, 150, 154 and 157 are amended, and claims 45, 46, 51, 79, 84-86, 105, 114, 115, 118, 119, 124-129, 134, 139, 144, 145, 148, 149, 155 and 156 are cancelled. The